

Tim De Kock

List of Publications by Year in descending order

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55
papers

1,215
citations

361296

20
h-index

395590

33
g-index

55
all docs

55
docs citations

55
times ranked

1396
citing authors

#	ARTICLE	IF	CITATIONS
1	Examining the Potential of Enzyme-Based Detergents to Remove Biofouling from Limestone Heritage. Coatings, 2022, 12, 375.	1.2	0
2	The effects of cyanobacterial biofilms on water transport and retention of natural building stones. Earth Surface Processes and Landforms, 2022, 47, 1921-1936.	1.2	5
3	Charge balance calculations for mixed salt systems applied to a large dataset from the built environment. Scientific Data, 2022, 9, .	2.4	2
4	Thermal Alteration of Flint: An Experimental Approach to Investigate the Effect on Material Properties. Lithic Technology, 2021, 46, 27-44.	0.4	6
5	NaCl-related weathering of stone: the importance of kinetics and salt mixtures in environmental risk assessment. Heritage Science, 2021, 9, .	1.0	11
6	Burning flint: An experimental approach to study the effect of fire on flint tools. Journal of Archaeological Science: Reports, 2021, 36, 102854.	0.2	3
7	Towards a more effective and reliable salt crystallisation test for porous building materials: Predictive modelling of sodium chloride salt distribution. Construction and Building Materials, 2021, 304, 124436.	3.2	9
8	Understanding the Microstructure of Mortars for Cultural Heritage Using X-ray CT and MIP. Materials, 2021, 14, 5939.	1.3	7
9	The capabilities of bacteria and archaea to alter natural building stones – A review. International Biodeterioration and Biodegradation, 2021, 165, 105329.	1.9	14
10	Origin and timing of past hillslope activity in the hyper-arid core of the Atacama Desert – The formation of fine sediment lobes along the Chuculay Fault System, Northern Chile. Global and Planetary Change, 2020, 184, 103057.	1.6	11
11	Time-resolved and Multi-modal Evaluation of Building Stone Weathering – New Advances in 4D Imaging and Analysis. Microscopy and Microanalysis, 2020, 26, 1052-1054.	0.2	0
12	Differential colonization of microbial communities inhabiting Lede stone in the urban and rural environment. Science of the Total Environment, 2020, 733, 139339.	3.9	17
13	The role of ink-bottle pores in freeze-thaw damage of oolitic limestone. Construction and Building Materials, 2020, 246, 118515.	3.2	22
14	A review on freeze-thaw action and weathering of rocks. Earth-Science Reviews, 2020, 203, 103143.	4.0	117
15	Effect of initial fabric on the undrained response of clean Chlef sand. European Journal of Environmental and Civil Engineering, 2019, , 1-16.	1.0	6
16	Liquid moisture transport in combined ceramic brick and natural hydraulic lime mortar samples: Does the hygric interface resistance dominate the moisture transport?. Journal of Building Physics, 2019, 43, 208-228.	1.2	16
17	Uniaxial compressive strength measurements of limestone plugs and cores: a size comparison and X-ray CT study. Bulletin of Engineering Geology and the Environment, 2019, 78, 5301-5310.	1.6	20
18	Neutron Radiography Study of Laboratory Ageing and Treatment Applications with Stone Consolidants. Nanomaterials, 2019, 9, 635.	1.9	5

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19	Impact of the urban heat island on freeze-thaw risk of natural stone in the built environment, a case study in Ghent, Belgium. <i>Science of the Total Environment</i> , 2019, 677, 9-18.	3.9	21
20	Investigation of the effect of specific interfacial area on strength of unsaturated granular materials by X-ray tomography. <i>Acta Geotechnica</i> , 2019, 14, 1545-1559.	2.9	22
21	A well-preserved Michelsberg Culture domed oven from Kortrijk, Belgium. <i>Antiquity</i> , 2019, 93, 342-358.	0.5	2
22	Does historic construction suffer or benefit from the urban heat island effect in Ghent and global warming across Europe?. <i>Canadian Journal of Civil Engineering</i> , 2019, 46, 1032-1042.	0.7	15
23	Preliminary characterization of flint raw material used on prehistoric sites in NW Belgium. <i>Geoarchaeology - an International Journal</i> , 2019, 34, 400-412.	0.7	10
24	Generalized Osteosclerotic Condition in the Skeleton of <i>Nanophoca vitulinoides</i> , a Dwarf Seal from the Miocene of Belgium. <i>Journal of Mammalian Evolution</i> , 2019, 26, 517-543.	1.0	7
25	Weathering assessment under X-ray tomography of building stones exposed to acid atmospheres at current pollution rate. <i>Construction and Building Materials</i> , 2018, 168, 187-198.	3.2	36
26	Methane Bubble Growth and Migration in Aquatic Sediments Observed by X-ray μ CT. <i>Environmental Science & Technology</i> , 2018, 52, 2007-2015.	4.6	57
27	In Situ Triaxial Testing To Determine Fracture Permeability and Aperture Distribution for CO_2 Sequestration in Svalbard, Norway. <i>Environmental Science & Technology</i> , 2018, 52, 4546-4554.	4.6	27
28	Multi-scale laboratory routine in the efficacy assessment of conservative products for natural stones. <i>MethodsX</i> , 2018, 5, 1095-1101.	0.7	4
29	Efficiency assessment of hybrid coatings for natural building stones: Advanced and multi-scale laboratory investigation. <i>Construction and Building Materials</i> , 2018, 180, 412-424.	3.2	12
30	Treatise of Digital Reconstruction and Restauration of Lace Porcelain. <i>Lecture Notes in Computer Science</i> , 2018, , 15-26.	1.0	2
31	Rock fabric heterogeneity and its influence on the petrophysical properties of a building limestone: Lede stone (Belgium) as an example. <i>Engineering Geology</i> , 2017, 216, 31-41.	2.9	22
32	Laminar gypsum crust on lede stone: Microspatial characterization and laboratory acid weathering. <i>Talanta</i> , 2017, 162, 193-202.	2.9	23
33	Texture and mineralogy influence on durability: the Macigno sandstone. <i>Quarterly Journal of Engineering Geology and Hydrogeology</i> , 2017, 50, 393-401.	0.8	3
34	Investigating the relative permeability behavior of microporosity-rich carbonates and tight sandstones with multiscale pore network models. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 7929-7945.	1.4	34
35	Historical decision-making for the choice of natural stone in St Bavo's Cathedral tower in Ghent, Belgium. <i>Geology Today</i> , 2016, 32, 148-153.	0.3	0
36	A compact low cost cooling stage for lab based x-ray micro-CT setups. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	6

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37	A Pore-Scale Study of Fracture Dynamics in Rock Using X-ray Micro-CT Under Ambient Freeze-Thaw Cycling. <i>Environmental Science & Technology</i> , 2015, 49, 2867-2874.	4.6	118
38	Microstructural examination and potential application of rendering mortars made of tire rubber and expanded polystyrene wastes. <i>Construction and Building Materials</i> , 2015, 94, 817-825.	3.2	28
39	Conservation studies of cultural heritage: X-ray imaging of dynamic processes in building materials. <i>European Journal of Mineralogy</i> , 2015, 27, 269-278.	0.4	12
40	X-ray computed micro-tomography to study the porous structure and degradation processes of a building stone from Sabucina (Sicily). <i>European Journal of Mineralogy</i> , 2015, 27, 279-288.	0.4	11
41	Mineralogical transformations in sandstone: a fingerprint for prehistorical heating of Palaeolithic hearth stones. <i>European Journal of Mineralogy</i> , 2015, 27, 651-657.	0.4	2
42	Characterization of composition and structure of clay minerals in sandstone with ptychographic X-ray nanotomography. <i>Applied Clay Science</i> , 2015, 118, 258-264.	2.6	21
43	Characterization, performance and replacement stone compatibility of building stone in the 12th century tower of Dudzele (Belgium). <i>Engineering Geology</i> , 2015, 184, 43-51.	2.9	19
44	Lede Stone: A potential "Global Heritage Stone Resource" from Belgium. <i>Episodes</i> , 2015, 38, 91-96.	0.8	11
45	Replacement stones for Lede stone in Belgian historical monuments. <i>Geological Society Special Publication</i> , 2014, 391, 31-46.	0.8	13
46	3D mapping of water in oolitic limestone at atmospheric and vacuum saturation using X-ray micro-CT differential imaging. <i>Materials Characterization</i> , 2014, 97, 150-160.	1.9	68
47	Neutron radiography and X-ray computed tomography for quantifying weathering and water uptake processes inside porous limestone used as building material. <i>Materials Characterization</i> , 2014, 88, 86-99.	1.9	64
48	Monitoring of Stainless-Steel Slag Carbonation Using X-ray Computed Microtomography. <i>Environmental Science & Technology</i> , 2014, 48, 674-680.	4.6	50
49	A sealed flint knapping site from the Younger Dryas in the Scheldt valley (Belgium): Bridging the gap in human occupation at the Pleistocene-Holocene transition in W Europe. <i>Journal of Archaeological Science</i> , 2014, 50, 420-439.	1.2	9
50	X-ray tomography and chemical-physical study of a calcarenite extracted from a Roman quarry in Cartagena (Spain). <i>Engineering Geology</i> , 2014, 171, 21-30.	2.9	17
51	Holistic approach of pre-existing flaws on the decay of two limestones. <i>Science of the Total Environment</i> , 2013, 447, 403-414.	3.9	23
52	Multi-disciplinary characterization and monitoring of sandstone (Kandla Grey) under different external conditions. <i>Quarterly Journal of Engineering Geology and Hydrogeology</i> , 2013, 46, 95-106.	0.8	11
53	X-ray microtomography (µ-CT) to evaluate microstructure of mortars containing low density additions. <i>Cement and Concrete Composites</i> , 2012, 34, 993-1000.	4.6	49
54	4D imaging and quantification of pore structure modifications inside natural building stones by means of high resolution X-ray CT. <i>Science of the Total Environment</i> , 2012, 416, 436-448.	3.9	82

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55	High-resolution X-ray CT for 3D petrography of ferruginous sandstone for an investigation of building stone decay. <i>Microscopy Research and Technique</i> , 2011, 74, 1006-1017.	1.2	33